

IN THE CLAIMS:

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1. (currently amended) A method of operating an electronic locking device using a wireless communication device, comprising:  
receiving a master key code from a master key supplier;  
generating a secondary key code from the master key code; and  
transmitting the secondary key code to the wireless communication device,  
wherein the secondary key code is used by the wireless communication device to operate the electronic locking device in lieu of by a tangible device.
  2. (Original) The method of claim 1, wherein the secondary key code includes a secondary key code portion and zero or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion.
  3. (Original) The method of claim 1, wherein the master key code is received via at least one network.
  4. (Original) The method of claim 1, further comprising:  
sending a master key code request to the master key supplier, the master key code request identifying one or more of a key supplier identifier, a product code of the electronic locking device, an electronic certificate, and a password.
  5. (Original) The method of claim 1, further comprising:  
transmitting the secondary key code to the electronic locking device using at least one of a wired communication link and wireless communication link.
  6. (Original) The method of claim 5, wherein transmitting the secondary key code to the electronic locking device includes transmitting the secondary key code based on a network address of the electronic locking device.

7. (Original) The method of claim 5, wherein transmitting the secondary key code to the electronic locking device includes broadcasting the secondary key code along with an identifier of the electronic locking device.
8. (Original) The method of claim 1, wherein the wireless communication device is one of a personal digital assistant, a two-way pager, a mobile telephone device, a wireless transmitter, a handheld computer, a laptop computer, and a Bluetooth<sup>TM</sup> enabled device.
9. (Original) The method of claim 1, wherein transmitting the secondary key code to the wireless communication device includes transmitting the secondary key code using at least one of a wireless communication link and a wired communication link.
10. (Original) The method of claim 1, wherein transmitting the secondary key code to the wireless communication device includes transmitting the secondary key code as an attachment to an electronic mail message.
11. (Original) The method of claim 10, wherein the electronic mail message is sent to the wireless communication device at a remote time from use of the secondary key code to operate the electronic locking device.
12. (Original) The method of claim 5, further comprising receiving a confirmation message from the electronic locking device confirming reprogramming of the electronic locking device to accept the secondary key code.
13. (Original) The method of claim 1, wherein the electronic locking device is preprogrammed to accept the secondary key code.
14. (Original) The method of claim 5, wherein transmitting the secondary key code to the electronic locking device is performed at a remote time from transmitting the secondary key code to the wireless communication device.

15. (Original) The method of claim 1, further comprising:  
receiving a key code from the wireless communication device;  
authenticating the key code based on the secondary key code; and  
transmitting a command to operate the electronic locking device if the key code is authentic.
16. (Original) The method of claim 15, further comprising:  
determining if a number of attempts to operate the electronic locking device within a predetermined period of time exceeds a threshold; and  
placing the electronic locking device in a safety mode if the number of attempts exceeds the threshold.
17. (Original) The method of claim 16, wherein the safety mode is one of a slow down mode and a freeze mode.
18. (Original) The method of claim 15, wherein authenticating the key code includes performing a comparison of the key code to information stored in a key code table.
19. (Original) The method of claim 18, wherein the key code table includes an entry for the electronic locking device, and wherein the entry includes one or more of a valid secondary key code, activation/expiration information, and wireless communication device identification information.
20. (Original) The method of claim 1, wherein the wireless communication device is a wireless communication device owned by a user.
21. (Original) The method of claim 2, wherein the secondary key code portion and the one or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion are encoded.

22. (Original) The method of claim 1, further comprising maintaining a record of secondary key codes used to access the electronic locking device.
23. (Original) The method of claim 1, wherein generating a secondary key code from the master key code includes at least one of using a random number generator, using a key code algorithm, and using one of a plurality of key code generator algorithms chosen in a random or pseudo-random manner.
24. (Original) The method of claim 15, wherein authenticating the key code based on the secondary key code includes determining an activation/expiration time of the secondary key code and determining if a current time is within the activation/expiration time.
25. (Original) The method of claim 3, wherein the at least one network is the Internet.
26. (Original) The method of claim 1, further comprising:  
polling the electronic locking device; and  
receiving status information from the electronic locking device in response to polling the electronic locking device.
27. (Original) The method of claim 26, wherein the status information includes at least one of a current status of the electronic locking device, a time at which operation of the electronic locking device was last attempted, a key code last used to attempt to operate the electronic locking device, and a wireless communication device identifier of a wireless communication device last used to attempt to operate the electronic locking device.
28. (Original) The method of claim 26, further comprising operating the electronic locking device based on the received status information.

29. (currently amended) An apparatus for operating an electronic locking device using a wireless communication device, comprising:

means for receiving a master key code from a master key supplier;

means for generating a secondary key code from the master key code; and

first means for transmitting the secondary key code to the wireless communication device, wherein the secondary key code is used by the wireless communication device to operate the electronic locking device in lieu of by a tangible device.

✓ 30. (Original) The apparatus of claim 29, wherein the secondary key code includes a secondary key code portion and zero or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion.

Q1 ^ 31. (Original) The apparatus of claim 29, wherein the master key code is received from the master key supplier via at least one network.

✓ 32. (Original) The apparatus of claim 29, further comprising:  
means for sending a master key code request to the master key supplier, the master key code request identifying one or more of a key supplier identifier, a product code of the electronic locking device, an electronic certificate, and a password.

✓ 33. (Original) The apparatus of claim 29, further comprising:  
second means for transmitting the secondary key code to the electronic locking device using at least one of a wired communication link and wireless communication link.

34. (Original) The apparatus of claim 33, wherein the second means for transmitting the secondary key code to the electronic locking device includes means for transmitting the secondary key code based on a network address of the electronic locking device.

35. (Original) The apparatus of claim 33, wherein the second means for transmitting the secondary key code to the electronic locking device includes means for broadcasting the secondary key code along with an identifier of the electronic locking device.
36. (Original) The apparatus of claim 29, wherein the wireless communication device is one of a personal digital assistant, a two-way pager, a mobile telephone device, a wireless transmitter, a handheld computer, a laptop computer, and a Bluetooth™ enabled device.
37. (Original) The apparatus of claim 29, wherein the first means for transmitting the secondary key code to the wireless communication device includes means for transmitting the secondary key code using at least one of a wireless communication link and a wired communication link.
38. (Original) The apparatus of claim 29, wherein the first means for transmitting the secondary key code to the wireless communication device includes means for transmitting the secondary key code as an attachment to an electronic mail message.
39. (Original) The apparatus of claim 38, wherein the electronic mail message is sent to the wireless communication device at a remote time from use of the secondary key code to operate the electronic locking device.
40. (Original) The apparatus of claim 33, further comprising means for receiving a confirmation message from the electronic locking device confirming reprogramming of the electronic locking device to accept the secondary key code.
41. (Original) The apparatus of claim 29, wherein the electronic locking device is preprogrammed to accept the secondary key code.
42. (Original) The apparatus of claim 33, wherein the second means for transmitting the secondary key code to the electronic locking device performs the transmission at a

remote from transmitting the secondary key code to the wireless communication device.

43. (Original) The apparatus of claim 29, further comprising:  
means for receiving a key code from the wireless communication device;  
means for authenticating the key code based on the secondary key code; and  
means for transmitting a command to operate the electronic locking device if the key code is authentic.
44. (Original) The apparatus of claim 43, further comprising:  
means for determining if a number of attempts to operate the electronic locking device within a predetermined period of time exceeds a threshold; and  
means for placing the electronic locking device in a safety mode if the number of attempts exceeds the threshold.
45. (Original) The apparatus of claim 44, wherein the safety mode is one of a slow down mode and a freeze mode.
46. (Original) The apparatus of claim 43, wherein the means for authenticating the key code includes means for performing a comparison of the key code to information stored in a key code table.
47. (Original) The apparatus of claim 46, wherein the key code table includes an entry for the electronic locking device, and wherein the entry includes one or more of a valid secondary key code, activation/expiration information, and wireless communication device identification information.
48. (Original) The apparatus of claim 29, wherein the wireless communication device is a wireless communication device owned by a user.

49. (Original) The apparatus of claim 30, wherein the secondary key code portion and the one or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of use portion are encoded.
50. (Original) The apparatus of claim 29, further comprising means for maintaining a record of secondary key codes used to access the electronic locking device.
51. (Original) The apparatus of claim 29, wherein the means for generating a secondary key code from the master key code includes at least one of using a random number generator, using a key code algorithm, and using one of a plurality of key code generator algorithms chosen in a random or pseudo-random manner.
52. (Original) The apparatus of claim 43, wherein the means for authenticating the key code based on the secondary key code includes determining an activation/expiration time of the secondary key code and determining if a current time is within the activation/expiration time.
53. (Original) The apparatus of claim 31, wherein the at least one network is the Internet.
54. (Original) The apparatus of claim 29, further comprising:  
means for polling the electronic locking device; and  
means for receiving status information from the electronic locking device in response to polling the electronic locking device.
55. (Original) The apparatus of claim 54, wherein the status information includes at least one of a current status of the electronic locking device, a time at which operation of the electronic locking device was last attempted, a key code last used to attempt to operate the electronic locking device, and a wireless communication device identifier of a



wireless communication device last used to attempt to operate the electronic locking device.

56. (Original) A computer program product in a computer readable medium for operating an electronic locking device using a wireless communication device, comprising:

first instructions for receiving a master key code from a master key supplier;

second instructions for generating a secondary key code from the master key code; and

third instructions for transmitting the secondary key code to the wireless communication device, wherein the secondary key code is used by the wireless communication device to operate the electronic locking device.

57. (Original) A method of operating an electronic locking device using a wireless communication device, comprising:

requesting a secondary key code from a key code supplier;

receiving the secondary key code associated with the electronic locking device, the secondary key code having been generated based on a master key code; and

transmitting the secondary key code to the electronic locking device, wherein the electronic locking device is operated in response to receiving the secondary key code.

58. (Original) The method of claim 57, wherein the secondary key code includes a secondary key code portion and zero or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion.

59. (Original) The method of claim 57, wherein the wireless communication device is one of a personal digital assistant, a two-way pager, a mobile telephone device, a wireless transmitter, a handheld computer, a laptop computer, and a Bluetooth™ enabled device.

60. (Original) The method of claim 57, wherein receiving the secondary key code includes receiving the secondary key code as an attachment to an electronic mail message.
61. (Original) The method of claim 60, wherein the electronic mail message is received at a remote time from use of the secondary key code to operate the electronic locking device.
62. (Original) The method of claim 57, wherein the electronic locking device is preprogrammed to accept the secondary key code.
63. (Original) The method of claim 58, wherein the secondary key code portion and the one or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion are encoded.
64. (Original) The method of claim 57, further comprising:  
determining if a delete command is received; and  
deleting the secondary key code from a key storage if a delete command is received.
65. (Original) The method of claim 64, wherein the delete command is received from one of a key supplier and the electronic locking device.
66. (Original) A wireless communication apparatus for operating an electronic locking device, comprising:  
means for requesting a secondary key code from a key code supplier;  
means for receiving the secondary key code associated with the electronic locking device, the secondary key code having been generated based on a master key code; and

means for transmitting the secondary key code to the electronic locking device, wherein the electronic locking device is operated in response to receiving the secondary key code.

67. (Original) The wireless communication apparatus of claim 66, wherein the secondary key code includes a secondary key code portion and zero or more of a master key code portion, an activation/expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion.

68. (Original) The wireless communication apparatus of claim 66, wherein the wireless communication apparatus is one of a personal digital assistant, a two-way pager, a mobile telephone device, a wireless transmitter, a handheld computer, a laptop computer, and a Bluetooth<sup>TM</sup> enabled device.

69. (Original) The wireless communication apparatus of claim 66, wherein the means for receiving the secondary key code includes means for receiving the secondary key code as an attachment to an electronic mail message.

70. (Original) The wireless communication apparatus of claim 69, wherein the electronic mail message is received at a remote time from use of the secondary key code to operate the electronic locking device.

71. (Original) The wireless communication apparatus of claim 66, wherein the electronic locking device is preprogrammed to accept the secondary key code.

72. (Original) The wireless communication apparatus of claim 67, wherein the secondary key code portion and the zero or more of a master key code portion, an activation/ expiration portion, a wireless communication device identification portion, a time of issue portion, and a time of last use portion are encoded.

73. (Original) The wireless communication apparatus of claim 66, further comprising:

means for determining if a delete command is received; and

means for deleting the secondary key code from a key storage if a delete command is received.

74. (Original) The wireless communication apparatus of claim 73, wherein the delete command is received from one of a key supplier and the electronic locking device.

75. (Original) A computer program product in a computer readable medium for operating an electronic locking device, comprising:

first instructions for requesting a secondary key code from a key code supplier;

second instructions for receiving the secondary key code associated with the electronic locking device, the secondary key code having been generated based on a master key code; and

third instructions for transmitting the secondary key code to the electronic locking device, wherein the electronic locking device is operated in response to receiving the secondary key code.

76. (Original) A method of operating an electronic locking device using a wireless communication device, comprising:

receiving, from a key supplier, a secondary key code for operating the electronic locking device, the secondary key code having been generated based on a master key code;

receiving a key code from the wireless communication device;

authenticating the key code using the secondary key code; and

operating the electronic locking device if the key code is authenticated.

77. (Original) An electronic locking device comprising:  
means for receiving, from a key supplier, a secondary key code for operating the electronic locking device, the secondary key code having been generated based on a master key code;  
means for receiving a key code from a wireless communication device;  
means for authenticating the key code using the secondary key code; and  
means for operating the electronic locking device if the key code is authenticated.

78. (Original) A computer program product in a computer readable medium for operating an electronic locking device, comprising:  
first instructions for receiving, from a key supplier, a secondary key code for operating the electronic locking device, the secondary key code having been generated based on a master key code;  
second instructions for receiving a key code from the wireless communication device;  
third instructions for authenticating the key code using the secondary key code;  
and  
fourth instructions for operating the electronic locking device if the key code is authenticated.